

7-12-1984

Meeting Notes 1984-07-09

Joint Policy Advisory Committee on Transportation

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Agenda

METROPOLITAN SERVICE DISTRICT 527 S.W. HALL ST., PORTLAND, OREGON 97201 503 221-1646
Providing Zoo, Transportation, Solid Waste and other Regional Services

Date: July 12, 1984

Day: Thursday

Time: 7:30 a.m.

JOINT POLICY ADVISORY COMMITTEE ON TRANSPORTATION

Place: Metro Offices, Conference Room A1/A2

- *1. ADOPTION OF RESOLUTION ENDORSING CONCLUSIONS OF DIESEL EXHAUST TASK FORCE - APPROVAL REQUESTED - Richard Brandman.
- #2. PRELIMINARY POPULATION AND EMPLOYMENT CONTROL TOTALS FOR THE PORTLAND REGION - INFORMATIONAL - Keith Lawton.
- #3. COMMENTS ON NEW UMTA POLICY ON MAJOR TRANSIT INVESTMENTS - INFORMATIONAL - Andy Cotugno.

*Material Enclosed.

#Available at Meeting.

MEETING REPORT

DATE OF MEETING: June 14, 1984

GROUP/SUBJECT: Joint Policy Advisory Committee on Transportation (JPACT)

PERSONS ATTENDING: Members: Charlie Williamson, Wes Myllenbeck, Larry Cole, Vern Veysey, John Frewing, Corky Kirkpatrick (alternate), Mike Lindberg, Robin Lindquist, Ed Hardt, and Dick Waker

Guests: Rick Daniels, Washington County; Ted Spence, ODOT; Sarah Salazar, Port of Portland; Peter Fry, Central Eastside Industrial Council; Rick Walker, Cities of Multnomah County; Lee Hames and Bob Post, Tri-Met; Steve Dotterer, City of Portland; and Gil Mallery, RPC of Clark County

Staff: Rick Gustafson, Andrew Cotugno, Keith Lawton, Peg Henwood, Karen Thackston, and Lois Kaplan, Secretary

MEDIA: None

SUMMARY:

1. MEETING REPORTS OF MAY 9 AND APRIL 12, 1984

The meeting reports of May 9 and April 12 were approved as written.

2. AMENDING THE FY 1984 TIP TO INCLUDE AN UPDATED PROGRAM OF PROJECTS USING SECTION 9 FUNDS

Andy explained that these Section 9 transit funds are available on a formula basis for capital purposes and that \$7.9 million is available. He further indicated that the program of projects being adopted was for over \$10 million, therefore requiring elements of the Banfield funding to carry over into FY 85.

Action Taken: It was moved and seconded to recommend approval of the Resolution (No. 84-473) for the purpose of amending the FY 84 TIP to include a program of projects using Section 9 funds. Motion CARRIED unanimously.

3. AMENDING THE TIP TO INCLUDE CORNELL ROAD BRIDGES IMPROVEMENT PROJECT

Andy noted that the State has funds available for bridge replacement projects and is seeking candidate projects such as those proposed by this resolution for Cornell Road. The intent is to use the funds for replacement of deteriorated structures.

The question was raised over the Cornell Road Bridges improvement due to its impending trade from Multnomah County to the City of Portland. Steve Dotterer indicated that the agreement stipulates that the road will be repaired by the County before the trade.

Action Taken: It was moved and seconded to recommend approval of the Resolution (84-474) amending the Transportation Improvement Program to include Cornell Road Bridges improvement. Motion CARRIED unanimously.

4. AUTHORIZING APPLICATION FOR FEDERAL FUNDS FOR A 16(B)(2) SPECIAL TRANSPORTATION PROJECT (ROBISON JEWISH HOME) AND AMENDING THE TIP

The Robison Jewish Home intends to purchase one 5-9 passenger stationwagon and two 10-16 passenger vans with lifts, meeting the criteria of serving specific client groups not presently served by Tri-Met. Approval of this Resolution makes them eligible for consideration of 16(b)(2) funds by the State.

Action Taken: It was moved and seconded to recommend approval of the Resolution (84-475) authorizing application for federal funds for a 16(b)(2) special transportation project (Robison Jewish Home) and amending the Transportation Improvement Program. Motion CARRIED unanimously.

5. FUNDING MEASURES - STATEWIDE AND LOCAL

Andy Cotugno reported on the various funding packages being explored by the State and by the League of Oregon Cities/Association of Oregon Counties. The State's alternatives are targeted on a one or two cent gas tax measure. The LOC and AOC are developing a revenue source that would provide more pass-through to the cities and counties than the historical shares. The Legislative Task Force on Roads has scheduled its first meeting immediately after the JPACT meeting.

Rick Gustafson encouraged JPACT to take a regional position on this funding matter, one that would reflect investment in the economic growth of this state. Chairman Williamson questioned whether TPAC should develop a policy statement in support of a legislative bonding issue for the region.

Regarding Interstate Transfer funds, Andy reported that this region will receive \$13.5 million in formula funds; however, \$19.5 million in discretionary funds will not be available. Thirty million is included in the House Bill for next year which is sufficient to pay for all programmed projects for

FY 84/85, thereby compensating for the loss of FY 84 funds, but allows for no additional reserves for cost increases or acceleration of projects. Senate consideration of the bill is still pending. Andy indicated that a decision would be forthcoming by next month.

6. 2005 EMPLOYMENT FORECASTS

Keith Lawton briefed the Committee on the analysis taken place to date using the Wharton Econometric Forecasting Associates forecast as the basis for discussion and resource document for the Regional Growth Forum workshops.

Keith noted that the WEFA forecast needed to be disaggregated from a state level down to census tracts for the Portland region. Three meetings will be held by the Regional Growth Forum, as follows: 1) subject - employment; 2) subject - housing; and 3) subject - general intraregional trends.

Whether jobs will be viewed in terms of S.I.C. classification rather than character of the jobs was questioned. Keith indicated that some of the information and decisions would have to be derived from the economists' discussion groups. Commissioner Veysey questioned whether Clark County would be included in the analysis; he further recommended that a representative of Clark County be included on the Forum. Keith related that the growth trends in Clark County would be analyzed, although the first analysis will be a regional one.

7. REGIONAL TRANSPORTATION PLAN UPDATE

Andy indicated that the paper on the scope of work and time frame for the RTP provided a general overview of the forthcoming process for updating the Regional Transportation Plan. In part, the intent is to update the regional population/employment growth assumptions to determine if travel demand and patterns have changed since adoption of the Plan. This analysis will also evaluate whether there is need to change policy direction.

With regard to the impact of telecommunications, it was noted that its assessment will be judgmental based on the newness of the industry and the expertise offered by representatives of the industry. Andy emphasized the three planning aspects to telecommunications being: how it affects travel in the peak and off-peak commuting and whether we should plan for a telecommunication system. Interest was also expressed in telecommunications as it relates to freight movement.

8. TACOMA/MCLOUGHLIN DECISION

In response to a question, Ed Hardt related that the Milwaukie City Council had recently been briefed on the McLoughlin alternatives and that a decision is anticipated in July or August on the preferred alternative at Tacoma. He indicated that they are down to two alternatives, citing the key issue as being the impact on Johnson Creek Boulevard stemming from improvement on McLoughlin at Tacoma. He noted that this matter will be subject to JPACT review to release the Interstate Transfer funds at a future meeting.

9. ADJOURNMENT

There being no further business, the meeting was adjourned.

REPORT WRITTEN BY: Lois Kaplan

COPIES TO: JPACT Members
Rick Gustafson
Don Carlson
Ray Barker

COMMITTEE MEETING TITLE JPACT

DATE 6-14-84 - 7:30 a.m.

NAME

AFFILIATION

M- Wes Myclerical	Wash Co
M- LARRY COLE	CITIES OF WASHINGTON COUNTY
M- Vern Veysey	Clark Co.
S- Rick Gustafson	Metro
M- John Fanning	TRI-MET
MA Corky Knipatrick	Metro
M- MIKE LINDBERG	CITY OF PORTLAND
M- ROBIN LINDBLUST	Cities of Clackamas Cty
M- Charlie Williamson	Metro
M- Ed Hardt	ODOT
G- Rick DANIELS	WASH. Co
G- Ted Spence	ODOT
S- Peg Hemwood	METRO
S- Karen Shackston	"
G- Sarah Salazar	Port of Portland
G- Peter Fry	C.E.I.C.
G- Pat Wells	Cities & Mun Co.
G- Bob Post	TRI-MET
G- STEVE DOTTERER	CITY OF PORTLAND
G- Lee Hames	TRI-MET
M- Dick Wake	Metro Councilor
S- Keith Lawton	Metro
G- Gil Mallery	RPC of Clark Co.

CONSIDERATION OF RESOLUTION NO. 84-480 FOR THE
PURPOSE OF ENDORSING THE RECOMMENDATIONS OF THE
DIESEL EXHAUST STUDY TASK FORCE

Date: June 20, 1984

Presented by: Richard Brandman

FACTUAL BACKGROUND AND ANALYSIS

Proposed Action

This action will endorse the recommendations of the Diesel Exhaust Study Task Force. The Task Force recommended:

- That the Metropolitan Service District (Metro) and the Department of Environmental Quality (DEQ) urge Congress and the Environmental Protection Agency to enact strict exhaust emission standards for diesel automobiles, trucks and buses at the national level.
- That DEQ analyze the potential air quality benefits and then consider testing diesel trucks and buses in the DEQ vehicle inspection program.
- That DEQ coordinate with Tri-Met on new bus purchases to ensure air quality concerns are addressed. This coordination should take place prior to Metro's Transportation Improvement Program (TIP) approval of any bus purchase grant.
- That DEQ monitor the demonstration project in southern California which is testing the feasibility of retrofitting transit buses to reduce particulate levels. DEQ should discuss with Tri-Met a similar project here if the California project is successful.
- That DEQ monitor sales of diesel automobiles and reconvene the Diesel Exhaust Study Task Force if diesel sales become greater than 10 percent of new automobile sales.

TPAC has reviewed this report and recommends approval of the resolution.

Background and Analysis

Metro and DEQ have implemented air quality plans to meet state and federal standards for ozone and carbon monoxide. Because of the

significance of the automobile as a source of these pollutants, Metro was designated by the Governor as the lead agency in those planning efforts.

In addition, DEQ has adopted a plan for particulates that did not show attainment of the particulate standard by the 1987 deadline without the implementation of additional control strategies. This status has resulted in new industries wishing to locate in the region having to purchase costly "emission offsets" from other industries. In response, DEQ has been examining and implementing control strategies for major sources of particulate including backyard burning, wood heating and industry.

When the sales of diesel automobiles and trucks rose substantially in the late 1970s, diesel vehicles became a potential "major source" of particulate. Because of our transportation planning and forecasting responsibilities, and our previous role in examining transportation-related air quality problems, Metro assisted DEQ in analyzing the potential effect to air quality of an increased number of diesel vehicles in the region.

To assist in analyzing the results of the analysis and in making policy recommendations, the Metro Council and DEQ jointly appointed the Diesel Exhaust Study Task Force. In brief, the Task Force found that projected increases in the use of diesel vehicles will moderately degrade air quality and that measures should be implemented to mitigate their impact. The major conclusions of the Task Force are found in the attached Executive Summary.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends adoption of Resolution No. 84-480.

COMMITTEE CONSIDERATION AND RECOMMENDATION

RB/srb
1462C/382
06/29/84

POTENTIAL IMPACTS TO AIR QUALITY
RESULTING FROM THE INCREASED
USE OF DIESEL VEHICLES IN THE
PORTLAND METROPOLITAN AREA

EXECUTIVE SUMMARY

METROPOLITAN SERVICE DISTRICT
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

June 1984

This study was funded in part by a grant from the U.S. Environmental Protection Agency.

Prepared By

Transportation Department, Metropolitan Service District
Air Quality Division, Department of Environmental Quality

Andrew Cotugno, Transportation Director, Metro
John Kowalczyk, Manager of Air Planning, DEQ

Technical Research Team and Authors

Richard Brandman, Project Manager, Metro
Patrick Hanrahan, Air Quality Impact Analyst, DEQ
Howard Harris, Transportation Coordinator, DEQ
Dick Walker, Senior Transportation Planner, Metro
Jeff Booth, Systems Analyst, Metro
Peg Henwood, Public Involvement Coordinator, Metro

Report Production

Gloria Logan	Word Processing
Sherrie Blackledge	Word Processing
John Willworth	Offset Printing

The time and effort expended by the Diesel Exhaust Study Task Force is greatly appreciated. The following individuals provided valuable assistance in the development of this study:

Dave Fredrikson	Public Member
Glenn Gregg	Public Member
Roger Eiss	Public Member
Kenneth Ross	Public Member
T. Dan Bracken	Air Quality Advisory Committee
Bill Braaten	Diesel Car Club of Oregon
John Charles	Oregon Environmental Council
Gary Brentano	Tri-Met
Ross Simmons	City Club of Portland
Jim Herlihy	Environmental Protection Agency
Judith Kenny	City of Portland

Introduction

Until recently, transportation/air quality planners have focused their attention on efforts to reduce pollution from gasoline automobiles. These efforts have led to a significant reduction in carbon monoxide, hydrocarbon and particulate emissions from those vehicles.

However, in the late 1970s and early 1980s, there was a significant increase in the number of diesel automobiles and trucks sold in the United States. While new diesel automobiles emit comparatively small amounts of carbon monoxide and hydrocarbons, they do emit more than 17 times the amount of particulate as each new gasoline automobile on the road (Table 1). Recognizing this, the Metropolitan Service District (Metro) and the Oregon Department of Environmental Quality (DEQ) undertook an analysis to determine the potential impact to air quality in the year 2000 from the increased use of diesel vehicles.

Table 1

EXHAUST PARTICULATE EMISSION RATES (grams/mile)

<u>Source</u>	<u>1984 Vehicles</u>
Gasoline Autos	0.02
Diesel Autos	0.34
Gasoline Trucks	0.26
Diesel Trucks	1.61
Diesel Buses	2.40

The analysis first examined the effect on air quality considering only the impacts of increased numbers of diesel automobiles and trucks. Recognizing that emissions from gasoline vehicles would be decreasing during this same time frame, the analysis then examined the combined impact on air quality from all mobile sources.

To assist in reviewing the analysis and in making policy recommendations, Metro and DEQ formed the Diesel Exhaust Study Task Force. The Task Force was composed of representatives of the public and private sectors. Their recommendations are found at the end of this report.

A. Conclusions

There has been a significant downward trend in the sale of diesel automobiles since 1982. If sales of diesel automobiles stay relatively low and average approximately 4 percent of all

new car sales through the year 2000, there will be a moderate degradation of air quality in the Portland metropolitan area attributable to them.

- Regionwide, particulate emissions from diesel automobiles and trucks would increase by 77 percent over 1980 levels.
- Fine particulate concentrations from diesel vehicles in downtown Portland would increase by 7 percent, or 0.72 ug/m³.
- Average visual range would decrease by 2 percent, or .83 kilometers.
- Visibility of Mt. St. Helens and Mt. Hood would decrease by two days per year, or 6 percent and 3 percent, respectively.
- If sales of diesel automobiles increase beyond 4 percent of the automobile fleet, there would be further degradation of air quality.
- The analysis also found that diesel trucks are now and will continue to be the major contributor of mobile source particulate emissions through the year 2000. (Sixty-five percent of mobile source emissions are from diesel trucks in the year 2000.) For this reason, strict controls on diesel trucks will yield more air quality benefit than controls on diesel automobiles.
- Diesel buses are a significant contributor to mobile source particulate emissions in downtown Portland. In addition, research found that vertical exhaust stacks on transit buses reduced odors at curbside by a factor of eight over buses with horizontal exhaust.
- Although emissions from diesel vehicles are increasing, there will be a large reduction in particulate emissions from gasoline vehicles due to the phase-out of leaded gasoline. If diesel and gasoline particulate emissions are considered together, there will be a slight net improvement in air quality from those sources, unless the percentage of diesel automobiles increases to more than 10 percent of the automobile fleet.
- If emissions from all other sources of particulate (road dust, space heating, etc.) are taken into account, air quality will moderately degrade unless new particulate control strategies are implemented.

B. Recommendations

The Portland metropolitan area currently exceeds both state and federal particulate air quality standards and will continue to do so unless additional particulate control strategies are

implemented. One effect of this status is that new industries wishing to locate in the Portland metropolitan area must purchase costly emission "offsets" from other industries or area sources and install extensive pollution control equipment. (These actions ensure that the total amount of emissions in a region do not increase from a new or expanding industry.)

The decision regarding whether or not to consider the decrease in emissions from gasoline vehicles as an "offset" to the increase in emissions from diesel vehicles is, therefore, an important policy question. If the decrease is considered as an offset, the rationale for recommending strict diesel emission control standards is diminished. However, if the increase in emissions from diesel automobiles were treated similarly to those from a new industry, they would be considered a "major source" by DEQ and, therefore, be subject to the requirement for obtaining emission offsets and installing extensive pollution control equipment.

In Portland, the Diesel Exhaust Study Task Force, which was composed of representatives from the public and private sectors, recommended that the decrease in emissions from gasoline vehicles not be considered an offset and that strict emission standards be applied to diesel automobiles, trucks and buses. The rationale for this recommendation was based on a consideration of equity. Almost all other major sources of particulate in the region (industry, woodstoves, backyard burning, etc.) have been required to strictly control their emissions to the point where little additional air quality benefit is possible from them. Diesel vehicles represent one of the few significant particulate sources remaining to control to help the region achieve its air quality objectives.

Based on the conclusions of the study, the Task Force recommended to the Metro Council and the Director of DEQ:

- That DEQ and Metro urge Congress and EPA to retain or accelerate the effective date of the 0.2 gm/mi exhaust particulate standard for diesel automobiles promulgated in the January 24, 1984, Federal Register.
- That DEQ and Metro urge Congress and EPA to promulgate similar exhaust particulate emission control standards for diesel trucks and buses at the national level.

The Task Force also recommended:

- That DEQ analyze the potential benefit to air quality from testing diesel trucks and buses in the DEQ vehicle inspection program. DEQ should consider testing these vehicles in their inspection program if the benefits are significant.

- That DEQ should monitor the current demonstration project in southern California which is testing the air quality benefits of retrofitting transit buses with trap oxidizers. If the program is successful, DEQ should discuss with Tri-Met retrofitting their bus fleet.
- That DEQ should consult with Tri-Met when they purchase new buses to ensure that air quality concerns are addressed, and that this coordination should take place prior to Metro's TIP approval of any bus purchase grant.
- That DEQ monitor sales of diesel automobiles, and if those sales become greater than 10 percent of all new automobile sales, reconvene the Diesel Exhaust Study Task Force to determine if further actions are warranted.

RB/srb
1438C/372
06/21/84

BEFORE THE COUNCIL OF THE
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF ENDORSING THE)	RESOLUTION NO. 84-480
RECOMMENDATIONS OF THE DIESEL)	
EXHAUST STUDY TASK FORCE)	Introduced by the Joint
)	Policy Advisory Committee
)	on Transportation

WHEREAS, The Portland Air Quality Maintenance Area is in violation of state and federal particulate air quality standards; and

WHEREAS, The region will continue to violate this standard unless additional particulate control strategies are adopted; and

WHEREAS, Continued violation of this standard will require that new industries wishing to locate in the Portland Air Quality Maintenance Area (or existing industries wishing to expand their production) must purchase costly emission offsets; and

WHEREAS, The Diesel Exhaust Study conducted by the Metropolitan Service District (Metro) and the Oregon Department of Environmental Quality (DEQ) found that projected increases in the use of diesel automobiles and diesel trucks will moderately degrade particulate air quality in the metropolitan area; and

WHEREAS, A Diesel Exhaust Study Task Force was initiated and charged with recommending to the Metro Council and the Director of DEQ measures to mitigate potential adverse air quality impacts from diesel vehicles; and

WHEREAS, The Task Force recommended appropriate measures to reduce particulate air quality impacts from diesel vehicles; now, therefore,

BE IT RESOLVED,

1. That the Metro Council endorses the recommendations as

shown in Attachment A.

2. That Metro transportation staff coordinate with DEQ, Tri-Met and other concerned agencies to fulfill the recommendations of the Task Force.

ADOPTED by the Council of the Metropolitan Service District
this _____ day of _____, 1984.

Presiding Officer

RB/srb
1462C/382
06/29/84

ATTACHMENT "A"

RECOMMENDATIONS OF THE DIESEL EXHAUST STUDY TASK FORCE

- That DEQ and Metro urge Congress and EPA to retain or accelerate the effective date of the 0.2 gm/mi exhaust particulate standard for diesel automobiles promulgated in the January 24, 1984, Federal Register.
- That DEQ and Metro urge Congress and EPA to promulgate similar exhaust particulate emission control standards for diesel trucks and buses at the national level.
- That DEQ analyze the potential benefit to air quality from testing diesel trucks and buses in the DEQ vehicle inspection program. DEQ should consider testing these vehicles in their inspection program if the benefits are significant.
- That DEQ should monitor the current demonstration project in southern California which is testing the air quality benefits of retrofitting transit buses with trap oxidizers. If the program is successful, DEQ should discuss with Tri-Met retrofitting their bus fleet.
- That DEQ should consult with Tri-Met when they purchase new buses to ensure that air quality concerns are addressed, and that this coordination should take place prior to Metro's Transportation Improvement Program (TIP) approval of any bus purchase grant.
- That DEQ monitor sales of diesel automobiles, and if those sales become greater than 10 percent of all new automobile sales, reconvene the Diesel Exhaust Study Task Force to determine if further actions are warranted.

ADDITIONAL RECOMMENDATION OF TPAC

- That DEQ and Metro shall consult with EPA and UMTA to explore revising bus design specifications to effectively address air quality concerns.

RB/srb
1462C/382
06/29/84

BEFORE THE COUNCIL OF THE
METROPOLITAN SERVICE DISTRICT

FOR THE PURPOSE OF ENDORSING THE)	RESOLUTION NO. 84-480
RECOMMENDATIONS OF THE DIESEL)	
EXHAUST STUDY TASK FORCE)	Introduced by the Joint
)	Policy Advisory Committee
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WHEREAS, The Portland Air Quality Maintenance Area is in violation of state and federal particulate air quality standards; and

WHEREAS, The region will continue to violate this standard unless additional particulate control strategies are adopted; and

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WHEREAS, The Diesel Exhaust Study conducted by the Metropolitan Service District (Metro) and the Oregon Department of Environmental Quality (DEQ) found that projected increases in the use of diesel automobiles and diesel trucks will moderately degrade particulate air quality in the metropolitan area; and

WHEREAS, A Diesel Exhaust Study Task Force was initiated and charged with recommending to the Metro Council and the Director of DEQ measures to mitigate potential adverse air quality impacts from diesel vehicles; and

WHEREAS, The Task Force recommended appropriate measures to reduce particulate air quality impacts from diesel vehicles; now, therefore,

BE IT RESOLVED,

1. That the Metro Council endorses the recommendations as

shown in Attachment A.

2. That Metro transportation staff coordinate with DEQ, Tri-Met and other concerned agencies to fulfill the recommendations of the Task Force.

ADOPTED by the Council of the Metropolitan Service District
this _____ day of _____, 1984.

Presiding Officer

RB/srb
1462C/382
06/29/84

ATTACHMENT "A"

RECOMMENDATIONS OF THE DIESEL EXHAUST STUDY TASK FORCE

- That DEQ and Metro urge Congress and EPA to retain or accelerate the effective date of the 0.2 gm/mi exhaust particulate standard for diesel automobiles promulgated in the January 24, 1984, Federal Register.
- That DEQ and Metro urge Congress and EPA to promulgate similar exhaust particulate emission control standards for diesel trucks and buses at the national level.
- That DEQ analyze the potential benefit to air quality from testing in the DEQ vehicle inspection program all diesel trucks and buses not registered under apportioned registration agreements provided for by ORS 481.645 (i.e., not registered in multiple states). DEQ should consider testing these vehicles in their inspection program if the benefits are significant.
- That DEQ should monitor the current demonstration project in southern California which is testing the air quality benefits of retrofitting transit buses with trap oxidizers. If the program is successful, DEQ should discuss with Tri-Met retrofitting their bus fleet.
- That DEQ should consult with Tri-Met when they purchase new buses to ensure that air quality concerns are addressed, and that this coordination should take place prior to Metro's Transportation Improvement Program (TIP) approval of any bus purchase grant.
- That DEQ monitor sales of diesel automobiles, and if those sales become greater than 10 percent of all new automobile sales, reconvene the Diesel Exhaust Study Task Force to determine if further actions are warranted.

ADDITIONAL RECOMMENDATION OF TPAC

- That DEQ and Metro shall consult with EPA and UMTA to explore revising bus design specifications to effectively address air quality concerns.

ADDITIONAL RECOMMENDATIONS OF JPACT

- That DEQ should complete their analysis of the benefit of testing diesel buses and trucks by March 31, 1985. If the benefit is cost-effective, DEQ should revise the Particulate State Implementation Plan to include this measure.
- That Tri-Met seek funds in FY 1986 to purchase trap oxidizers if their potential air quality benefits are found to be cost-effective.

STAFF REPORT

Agenda Item No. _____

Meeting Date _____

CONSIDERATION OF RESOLUTION NO. 84-480 FOR THE
PURPOSE OF ENDORSING THE RECOMMENDATIONS OF THE
DIESEL EXHAUST STUDY TASK FORCE

Date: June 20, 1984

Presented by: Richard Brandman

FACTUAL BACKGROUND AND ANALYSIS

Proposed Action

This action will endorse the recommendations of the Diesel Exhaust Study Task Force, with amendments approved by TPAC and JPACT. The recommendations are:

- That the Department of Environmental Quality (DEQ) and the Metropolitan Service District (Metro) urge Congress and the Environmental Protection Agency (EPA) to retain or accelerate the effective date of the 0.2 gm/mi exhaust particulate standard for diesel automobiles promulgated in the January 24, 1984, Federal Register.
- That Metro and DEQ urge Congress and EPA to enact strict exhaust emission standards for diesel trucks and buses at the national level.
- That DEQ analyze the potential air quality benefits and then consider testing diesel trucks and buses in the DEQ vehicle inspection program. If testing is cost-effective, DEQ should revise the Particulate State Implementation Plan to include this measure.
- That DEQ coordinate with Tri-Met on new bus purchases to ensure air quality concerns are addressed. This coordination should take place prior to Metro's Transportation Improvement Program (TIP) approval of any bus purchase grant.
- That DEQ monitor the demonstration project in southern California which is testing the feasibility of retrofitting transit buses with trap oxidizers to reduce particulate levels. Tri-Met should seek funding in FY 1986 to purchase trap oxidizers if the potential air quality benefits are cost-effective.
- That DEQ monitor sales of diesel automobiles and reconvene the Diesel Exhaust Study Task Force if diesel sales become greater than 10 percent of new automobile sales.

TPAC and JPACT have reviewed this report and unanimously recommended approval of the resolution, as amended (see Attachment A).

Background and Analysis

Metro and DEQ have implemented air quality plans to meet state and federal standards for ozone and carbon monoxide. Because of the significance of the automobile as a source of these pollutants, Metro was designated by the Governor as the lead agency in those planning efforts.

In addition, DEQ has adopted a plan for particulates that did not show attainment of the particulate standard by the 1987 deadline without the implementation of additional control strategies. This status has resulted in new industries wishing to locate in the region having to purchase costly "emission offsets" from other industries. In response, DEQ has been examining and implementing control strategies for major sources of particulate including backyard burning, wood heating and industry.

When the sales of diesel automobiles and trucks rose substantially in the late 1970s, diesel vehicles became a potential "major source" of particulate. Because of our transportation planning and forecasting responsibilities, and our previous role in examining transportation-related air quality problems, Metro assisted DEQ in analyzing the potential effect to air quality of an increased number of diesel vehicles in the region.

To assist in analyzing the results of the analysis and in making policy recommendations, the Metro Council and DEQ jointly appointed the Diesel Exhaust Study Task Force. In brief, the Task Force found that projected increases in the use of diesel vehicles will moderately degrade air quality and that measures should be implemented to mitigate their impact. The major conclusions of the Task Force are found in the attached Executive Summary.

EXECUTIVE OFFICER'S RECOMMENDATION

The Executive Officer recommends adoption of Resolution No. 84-480.

COMMITTEE CONSIDERATION AND RECOMMENDATION

The Regional Development Committee has considered the Resolution and has forwarded it to the Metro Council without a recommendation. The Resolution failed by a tie vote. At issue was the first recommendation of the Task Force, described in Attachment A, concerning the need for a stricter exhaust standard for diesel automobiles.

RB/srb
1462C/382
07/12/84

POTENTIAL IMPACTS TO AIR QUALITY
RESULTING FROM THE INCREASED
USE OF DIESEL VEHICLES IN THE
PORTLAND METROPOLITAN AREA

EXECUTIVE SUMMARY

METROPOLITAN SERVICE DISTRICT
OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

June 1984

This study was funded in part by a grant from the U.S. Environmental Protection Agency.

Prepared By

Transportation Department, Metropolitan Service District
Air Quality Division, Department of Environmental Quality

Andrew Cotugno, Transportation Director, Metro
John Kowalczyk, Manager of Air Planning, DEQ

Technical Research Team and Authors

Richard Brandman, Project Manager, Metro
Patrick Hanrahan, Air Quality Impact Analyst, DEQ
Howard Harris, Transportation Coordinator, DEQ
Dick Walker, Senior Transportation Planner, Metro
Jeff Booth, Systems Analyst, Metro
Peg Henwood, Public Involvement Coordinator, Metro

Report Production

Gloria Logan	Word Processing
Sherrie Blackledge	Word Processing
John Willworth	Offset Printing

The time and effort expended by the Diesel Exhaust Study Task Force is greatly appreciated. The following individuals provided valuable assistance in the development of this study:

Dave Fredrikson	Public Member
Glenn Gregg	Public Member
Roger Eiss	Public Member
Kenneth Ross	Public Member
T. Dan Bracken	Air Quality Advisory Committee
Bill Braaten	Diesel Car Club of Oregon
John Charles	Oregon Environmental Council
Gary Brentano	Tri-Met
Ross Simmons	City Club of Portland
Jim Herlihy	Environmental Protection Agency
Judith Kenny	City of Portland

Introduction

Until recently, transportation/air quality planners have focused their attention on efforts to reduce pollution from gasoline automobiles. These efforts have led to a significant reduction in carbon monoxide, hydrocarbon and particulate emissions from those vehicles.

However, in the late 1970s and early 1980s, there was a significant increase in the number of diesel automobiles and trucks sold in the United States. While new diesel automobiles emit comparatively small amounts of carbon monoxide and hydrocarbons, they do emit more than 17 times the amount of particulate as each new gasoline automobile on the road (Table 1). Recognizing this, the Metropolitan Service District (Metro) and the Oregon Department of Environmental Quality (DEQ) undertook an analysis to determine the potential impact to air quality in the year 2000 from the increased use of diesel vehicles.

Table 1

EXHAUST PARTICULATE EMISSION RATES (grams/mile)

<u>Source</u>	<u>1984 Vehicles</u>
Gasoline Autos	0.02
Diesel Autos	0.34
Gasoline Trucks	0.26
Diesel Trucks	1.61
Diesel Buses	2.40

The analysis first examined the effect on air quality considering only the impacts of increased numbers of diesel automobiles and trucks. Recognizing that emissions from gasoline vehicles would be decreasing during this same time frame, the analysis then examined the combined impact on air quality from all mobile sources.

To assist in reviewing the analysis and in making policy recommendations, Metro and DEQ formed the Diesel Exhaust Study Task Force. The Task Force was composed of representatives of the public and private sectors. Their recommendations are found at the end of this report.

A. Conclusions

There has been a significant downward trend in the sale of diesel automobiles since 1982. If sales of diesel automobiles stay relatively low and average approximately 4 percent of all

new car sales through the year 2000, there will be a moderate degradation of air quality in the Portland metropolitan area attributable to them.

- Regionwide, particulate emissions from diesel automobiles and trucks would increase by 77 percent over 1980 levels.
- Fine particulate concentrations from diesel vehicles in downtown Portland would increase by 7 percent, or 0.72 ug/m³.
- Average visual range would decrease by 2 percent, or .83 kilometers.
- Visibility of Mt. St. Helens and Mt. Hood would decrease by two days per year, or 6 percent and 3 percent, respectively.
- If sales of diesel automobiles increase beyond 4 percent of the automobile fleet, there would be further degradation of air quality.
- The analysis also found that diesel trucks are now and will continue to be the major contributor of mobile source particulate emissions through the year 2000. (Sixty-five percent of mobile source emissions are from diesel trucks in the year 2000.) For this reason, strict controls on diesel trucks will yield more air quality benefit than controls on diesel automobiles.
- Diesel buses are a significant contributor to mobile source particulate emissions in downtown Portland. In addition, research found that vertical exhaust stacks on transit buses reduced odors at curbside by a factor of eight over buses with horizontal exhaust.
- Although emissions from diesel vehicles are increasing, there will be a large reduction in particulate emissions from gasoline vehicles due to the phase-out of leaded gasoline. If diesel and gasoline particulate emissions are considered together, there will be a slight net improvement in air quality from those sources, unless the percentage of diesel automobiles increases to more than 10 percent of the automobile fleet.
- If emissions from all other sources of particulate (road dust, space heating, etc.) are taken into account, air quality will moderately degrade unless new particulate control strategies are implemented.

B. Recommendations

The Portland metropolitan area currently exceeds both state and federal particulate air quality standards and will continue to do so unless additional particulate control strategies are

implemented. One effect of this status is that new industries wishing to locate in the Portland metropolitan area must purchase costly emission "offsets" from other industries or area sources and install extensive pollution control equipment. (These actions ensure that the total amount of emissions in a region do not increase from a new or expanding industry.)

The decision regarding whether or not to consider the decrease in emissions from gasoline vehicles as an "offset" to the increase in emissions from diesel vehicles is, therefore, an important policy question. If the decrease is considered as an offset, the rationale for recommending strict diesel emission control standards is diminished. However, if the increase in emissions from diesel automobiles were treated similarly to those from a new industry, they would be considered a "major source" by DEQ and, therefore, be subject to the requirement for obtaining emission offsets and installing extensive pollution control equipment.

In Portland, the Diesel Exhaust Study Task Force, which was composed of representatives from the public and private sectors, recommended that the decrease in emissions from gasoline vehicles not be considered an offset and that strict emission standards be applied to diesel automobiles, trucks and buses. The rationale for this recommendation was based on a consideration of equity. Almost all other major sources of particulate in the region (industry, woodstoves, backyard burning, etc.) have been required to strictly control their emissions to the point where little additional air quality benefit is possible from them. Diesel vehicles represent one of the few significant particulate sources remaining to control to help the region achieve its air quality objectives.

Based on the conclusions of the study, the Task Force recommended to the Metro Council and the Director of DEQ:

- That DEQ and Metro urge Congress and EPA to retain or accelerate the effective date of the 0.2 gm/mi exhaust particulate standard for diesel automobiles promulgated in the January 24, 1984, Federal Register.
- That DEQ and Metro urge Congress and EPA to promulgate similar exhaust particulate emission control standards for diesel trucks and buses at the national level.

The Task Force also recommended:

- That DEQ analyze the potential benefit to air quality from testing diesel trucks and buses in the DEQ vehicle inspection program. DEQ should consider testing these vehicles in their inspection program if the benefits are significant.

- That DEQ should monitor the current demonstration project in southern California which is testing the air quality benefits of retrofitting transit buses with trap oxidizers. If the program is successful, DEQ should discuss with Tri-Met retrofitting their bus fleet.
- That DEQ should consult with Tri-Met when they purchase new buses to ensure that air quality concerns are addressed, and that this coordination should take place prior to Metro's TIP approval of any bus purchase grant.
- That DEQ monitor sales of diesel automobiles, and if those sales become greater than 10 percent of all new automobile sales, reconvene the Diesel Exhaust Study Task Force to determine if further actions are warranted.

The recommendations of the Task Force have been reviewed by two policy advisory committees of the Metropolitan Service District. The recommendations have been strengthened to add the following:

- That DEQ and Metro shall consult with EPA and UMTA to explore revising bus design specifications to effectively address air quality concerns.
- That DEQ should complete their analysis of the benefit of testing diesel buses and trucks by March 31, 1985. If the benefit is cost-effective, DEQ should revise the Particulate State Implementation Plan to include this measure.
- That Tri-Met seek funds in FY 1986 to purchase trap oxidizers if their potential air quality benefits are found to be cost-effective.

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Memo

METROPOLITAN SERVICE DISTRICT 527 S.W. HALL ST., PORTLAND, OREGON 97201 503 221-1646
Providing Zoo, Transportation, Solid Waste and other Regional Services

Date: July 11, 1984

To: JPACT

From: T. Keith Lawton, Data Services Director

Regarding: Issues Raised During Growth Forum Workshop

1. Electronics, etc.: Reduction in growth rate over time.

<u>Period</u>	<u>Jobs/Year</u>
1970 - 1980	1,700
1970 - 1983	970
1983 - 1989	1,850
1989 - 2005	580

Reasons: . Increased productivity.
. Labor intensive operations moved off shore.

2. Services: NPA and various other sources forecast relatively large growth in this area; the Growth Forum felt that this should be moderated.

Reasons: . Health is large part of group.
. Health services can be more productive.
. The rate of increase in federal and health insurance funds will slacken. This could be partially offset by growth in business services.

<u>Period</u>	<u>Jobs/Year</u>
1970 - 1980	4,300
1970 - 1983	3,230
1983 - 1989	3,170
1989 - 2005	3,130

3. Transportation Equipment and Fabricated Metals: Will show strong growth and be very important. Aggressive regional stance in Pacific Rim trade is important here.

<u>Period</u>	<u>Jobs/Year</u>
1970 - 1980	540
1970 - 1983	- 40
1983 - 1989	720
1989 - 2005	390

4. Pacific Rim Trade: There is a potential for large growth in this area; this would affect finance, business services, whole-sale trade, transportation, transportation equipment, and fabricated metals.
5. Household Size (currently 2.59): Will level off at between 2.4 and 2.5.
6. The region has a "handicap" to overcome -- the lack of growth in the traditional (past) manufacturing base -- lumber, pulp, primary metals and food processing. We have expected the high-tech and Pacific Rim trade impacts to be strong enough to overcome that and to provide an increased rate of growth (in past forecasts). This is perhaps expecting too much.
7. Reality Check: A look at rates of growth since 1950 will show a gradual increase in the number of jobs added per year.

<u>Period</u>	<u>Total Jobs/Year</u>
1950 - 1960	4,230
1960 - 1970	10,700
1970 - 1983	11,000
1983 - 2005	13,300

TKL:lmk